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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/155,635 07/09/99 SATO

H 48699

EXAMINER

IM62/0620

DIKE BRONSTEIN ROBERT & CUSHMAN
130 WATER STREET
BOSTON MA 02109

CHANEY, C

ART UNIT

PAPER NUMBER

1745

DATE MAILED:

06/20/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/155,635

Applicant(s)

Sato et al.

Examiner

Carol Chaney

Group Art Unit

1745



☒ Responsive to communication(s) filed on 4-6-00

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1, 3, and 4 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1, 3, and 4 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☒ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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Claim Rejections - 35 USC § 112

1. Claim 1, 3, and 4 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention.

Applicants' description of "Determination of graphite material", found on page 9 of the specification fails to provide one of ordinary skill in the art with guidance as to how to make carbon materials with the claimed attributes. The ordinary artisan is not given guidance in how to make or find carbon materials with the relationships of surface area and particle size or the ratios of strengths of peaks in a Raman spectrum recited in applicants' claims. Without guidance, it would appear that the ordinary artisan could test an infinite number of carbon materials without necessarily finding one which meets applicants' claimed parameters.

2. Claims 1, 3, and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the expression: $y \leq 42x^{-0.6}$ the claim is indefinite because the values on the right and left sides of the inequality have different units, and therefore cannot be sensibly compared. The value

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'y' has units of m^2/g , whereas " $42x^{-0.6}$ " has units of microns raised to the -0.6 power.

Additionally, the physical significance of length to a fractional power is indefinite.

Claim Rejections - 35 USC § 102

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Omaru et al. (US Patent 5,561,005) with evidence shown by Omaru et al. in US Patent 5,639,575 and Fauteux in US Patent 5,512,392, for reasons of record..

Omaru et al. disclose a secondary lithium battery having a graphitic anode formed from "LONZA KS 75" graphite. The graphite has a particle size of 28.4 microns, and a Raman spectrum "G value" of 8.82. (Note Omaru et al., US Patent 5,561,005, column 15, lines 50-60.) LONZA KS 75 graphite will have a surface area of less than about $7.65 \text{ m}^2/\text{g}$, as evidenced by Fauteux in US Patent 5,512,392. (Note column 3, Table 1.)

4. Claims 1 and 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamada et al. (US Patent 5,776,610), for reasons of record.

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Response to Arguments

5. Applicant's arguments filed 4-6-2000 have been fully considered but they are not persuasive.

The declaration under 37 CFR 1.132 filed 4-6-2000 is insufficient to overcome the rejection of claims 1 and 4 based upon Omaru et al. or Yamada et al. as set forth in the last Office action because: Applicants' declaration fails to explain the discrepancies in particle size of "LONZA KS 75" graphite as determined by Omaru et al. in US Patent 5,561,005, and the applicants. Omaru et al. in US Patent 5,561,005 at column 15, lines 50-60 disclose a "LONZA KS 75" graphite grain size of 28.4 microns is given, whereas applicants recite a "LONZA KS 75" graphite particle size of 23.7 microns. It is unclear if the data for LONZA graphites submitted by the applicants are the result of single measurements on each sample, or an average of several measurements. The amount of experimental uncertainty in the data presented is not disclosed, and therefore it is unclear if there are significant distinctions between the inventive and prior art graphite materials.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.



Carol Chaney
Primary Examiner
Art Unit 1745
June 19, 2000